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(56) Documents Cited

GB 2303078 A

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US 5795213 A

US 5314336 A

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(58) Field of Search

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Online : EPODOC,WPI,JAPIO

(54) Abstract Title

Talking doll with bar-code optical reader

(57) A talking doll has a bar-code optical reader connected to a microprocessor within the doll which is programmed to reproduce as spoken words a text selected according to the bar-code recognised by the reader. The reader may be in a hand, eye or spectacles of the doll or in a separate "pen" connected to the doll. The doll is used with a book printed in the form of bar codes, which is held in the hands of the doll and "read" by it. The microprocessor may be programmed to respond to simple words or sounds picked up by an included microphone and the sound output may include songs accompanied by music.

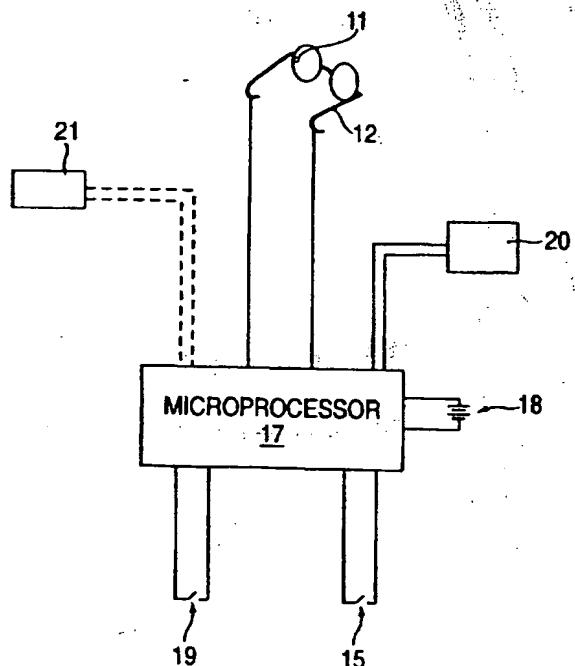


FIG. 2

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

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FIG. 1

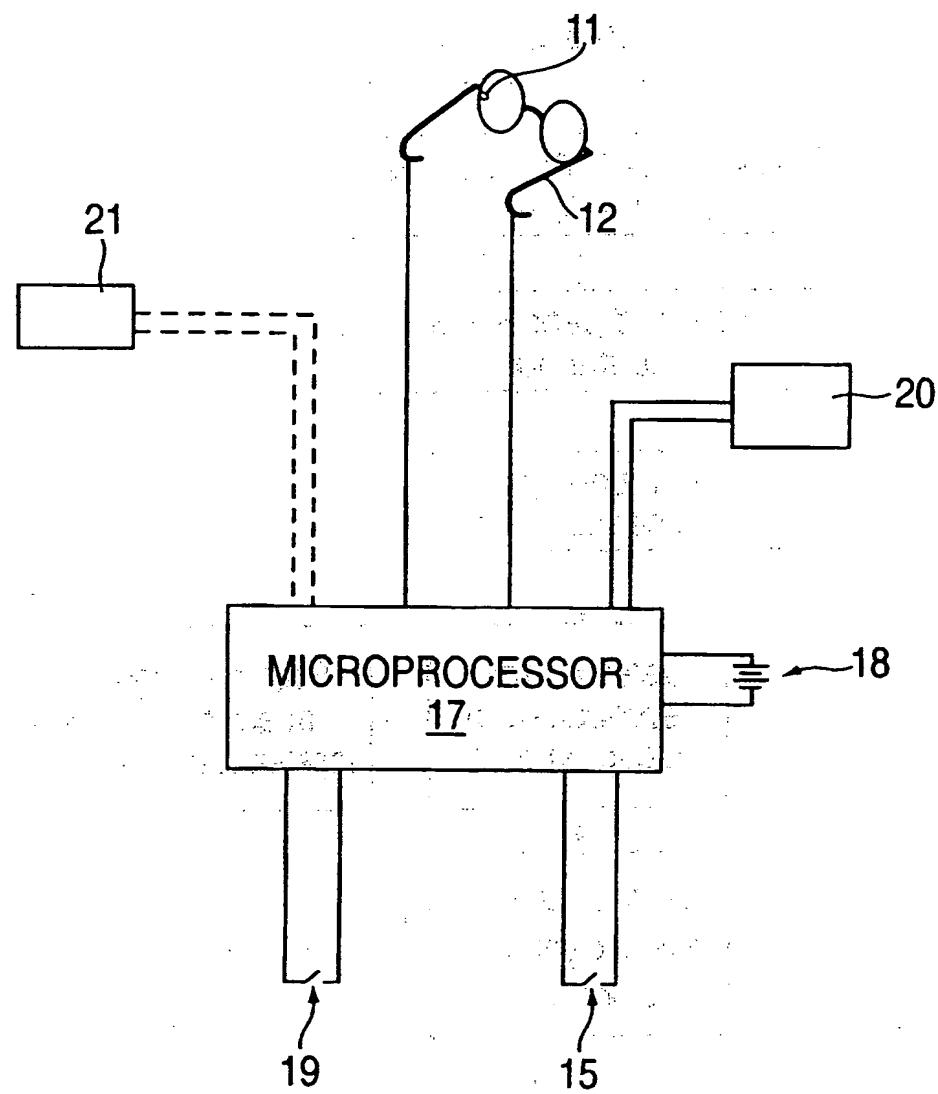


FIG. 2

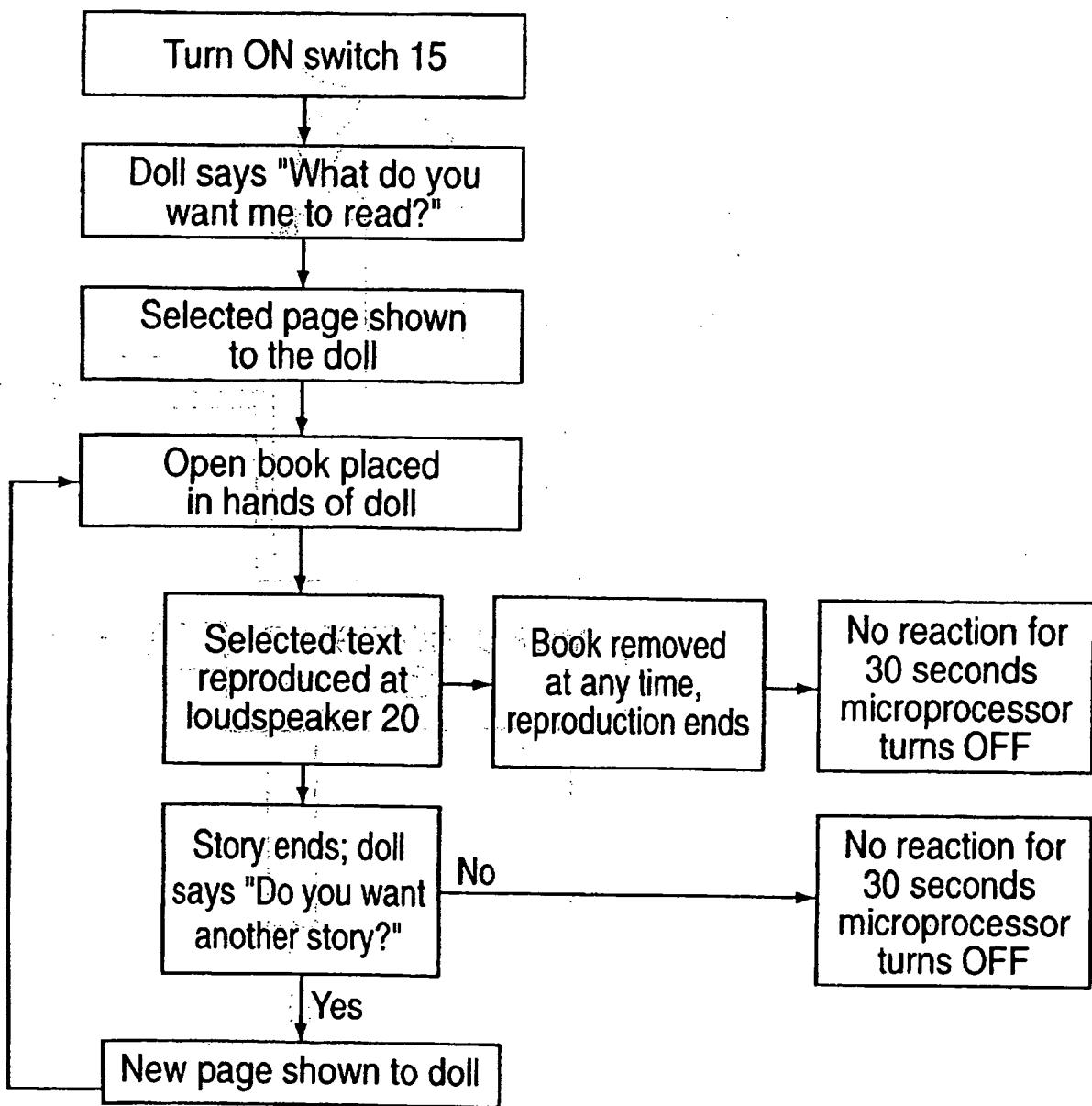


FIG. 3

TALKING DOLLBackground of the Invention

## 1. Field of the Invention

The invention relates to a talking doll.

## 5 2. Description of the Prior Art

Talking dolls are already known that respond to children's requests or talk to each other using infra-red communications signals for example. Typically, such dolls respond to physical stimuli that require the child 10 to press or switch ON the doll to carry out various tasks. By and large, the dolls are not "independently" pro-reactive at least to an initial request, which means some of the thrill or pleasure in playing with the dolls is lacking.

15 Summary of the Invention

It is an object of the invention to overcome or at least reduce this problem.

According to the invention there is provided a talking doll having a microprocessor mounted therein programmed 20 to reproduce a number of texts in the form of spoken

words and an externally mounted bar code optical reader for use in selecting the text and initiating the reproduction of each selected text.

5 The bar code optical reader may be mounted on a hand of the doll, adjacent an eye of the doll, on a pen electrically connected to the doll, or elsewhere.

A manually operated switch may be used to turn ON the doll. That switch may be mounted in a trunk of the doll's body.

10 The microprocessor may be programmed to ask the child initially to select a text to be reproduced.

15 A microphone may be mounted to the doll for picking up commands or other signals for initiating the running or continuing certain programmes or routines in the microprocessor.

Brief Description of the Drawings

A talking doll according to the invention will now be described by way of example with reference to the accompanying drawings in which:-

20 Figure 1 shows a doll;

Figure 2 shows an electrical schematic diagram of the doll; and

Figure 3 shows a flow chart for the doll.

Description of the Preferred Embodiments

5 Referring to the drawings, in Figure 1 a doll 10, representing a grandmother, has an optical bar code reader 11 mounted to a pair of spectacles 12. The doll has outstretched hands 13 that are formed to slidably receive a book 14 to initiate the start of "reading" of  
10 a text in the book. Each page of the book has a typically formed bar code display (not shown) that is used for selecting a text to be reproduced by the doll, as explained below. A manually operable switch 15 (see Figure 2) is mounted at A under a waist band 16 for  
15 turning ON the doll by a child simply exerting pressure on the waist band 16.

In Figure 2, the switch 15 is connected to a microprocessor 17 that is powered by a battery pack 18 and connected to the pair of spectacles 12. A second  
20 pressure switch 19 is mounted in one of the hands 13 of the doll that responds to the insertion of the open book into the hand 13.

The microprocessor has a conventional memory that stores

a number of appropriate texts that are reproduced at a loudspeaker in a manner well-understood for talking dolls. In use, the microprocessor is controlled to reproduce an appropriate text selected by scanning the 5 bar code reader over a bar code display provided on each page of the book 14.

In Figure 3, the flow chart illustrates a normal sequence of events carried out when playing with the doll. It will be appreciated that the doll may be provided with a 10 microphone 21. The microprocessor can be programmed to respond at least to fairly simply noises picked up by the microphone so that, for example, the doll may respond to claps to start and stop a "reading" of a text. Also, the microprocessor may be programmed to distinguish words 15 such as "YES" and "NO", so that whether a new story is read or not, can be determined vocally by the microphone picking up such words, to fit in with an appropriate step in the flow chart. It is quite possible and within 20 fairly simple and well-known current technology for the microprocessor to recognise such commands as "Please READ AGAIN", or similar.

The optical reader may be mounted on other parts of the doll such as on the hands of doll, or in a separate pen that is electrical connected to the microprocessor.

25 In any event, the described doll is pro-reactive in a

pleasurable and interesting manner. It will be appreciated that the stored texts, that correspond or respond to texts according to selected pages of one or more books, may also take the form of simple songs, and be reproduced accompanied by musical sounds if desired.

I Claim:

1. A talking doll having a microprocessor mounted therein programmed to reproduce a number of texts in the form of spoken words and an externally mounted bar code optical reader for use in selecting the text and initiating the reproduction of each selected text.  
5
2. A talking doll according to claim 1, in which the bar code optical reader is mounted on a hand of the doll.  
10
3. A talking doll according to claim 1, in which the bar code optical reader is mounted to an eye of the doll.  
15
4. A talking doll according to claim 1, in which the bar code optical reader is mounted to a pen electrically connected to the doll..
5. A talking doll according to claim 1, in which the bar code optical reader is mounted to reading glasses that fit on a head of the doll.  
20
6. A talking doll according to claim 1, including a manually operated switch that turns ON the doll.
7. A talking doll according to claim 6, in which the switch is mounted in a trunk of the doll's body.  
20

8. A talking doll according to claim 6, in which the microprocessor is programmed to ask the child to select a text to be reproduced.

5 9. A talking doll according to claim 1, including a microphone mounted to the doll for picking up commands or other signals for initiating the running or continuing of certain programmes or routines in the microprocessor.



INVESTOR IN PEOPLE

Application No: GB 0009931.7  
Claims searched: ALL

Examiner: R E Hardy  
Date of search: 8 September 2000

**Patents Act 1977**  
**Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK CI (Ed.R): A6S (S1F5)  
Int CI (Ed.7): A63H (3/28)

Other: Online : EPODOC,WPI,JAPIO

**Documents considered to be relevant:**

Category	Identity of document and relevant passage	Relevant to claims
Y	GB2303078 A ONILCO : Note use of doll's hand to select texts	2
Y	WO83/02188 A1 MERITBOND : Whole document	4
A	US5795213 A GOODWIN : Whole document	1
X, Y	US5314336 A DIAMOND : See description of the embodiment	X:1,3,6,7 Y:2,4

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

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